EFFECT OF TEA COMPONENTS ON CYTOKINE PRODUCTION IN HUMAN T CELLS

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Tea (*Camellia sinensis* L.) has various physiological activities, including an anti-allergic function. T cells are a type of lymphocyte playing an important role in the immune system. Furthermore, T cells produce various cytokines, which are bioactive proteins. Therefore, in order to clarify the effects of tea components on immunoregulation, we first selected human T-cell leukemia (CCRF-CEM, Jurkat E6-1, JKT-beta-del) from ATCC and JCRB. These cells produced some cytokines with stimulants, such as PMA, PWM and A23187. Among tea extracts and tea components, tea flavonols (kaempferol, myricetin and quercetin) affected IL-2 cytokine production, but tea extract or tea catechins (EGCG, EGC, ECG and EC) did not affect the IL-2 level of T cells. In conclusion, it is suggested that tea flavonols, particularly kaempferol, have some immunoregulatory functions.